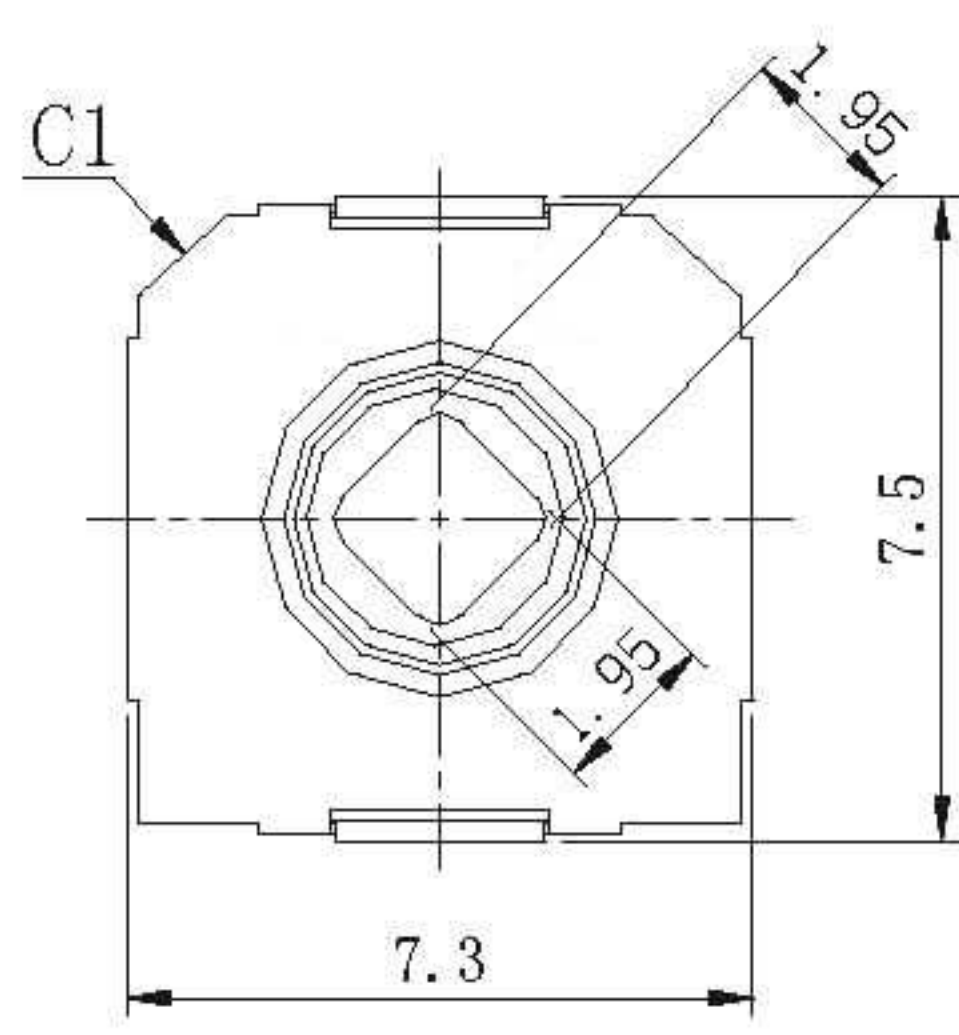
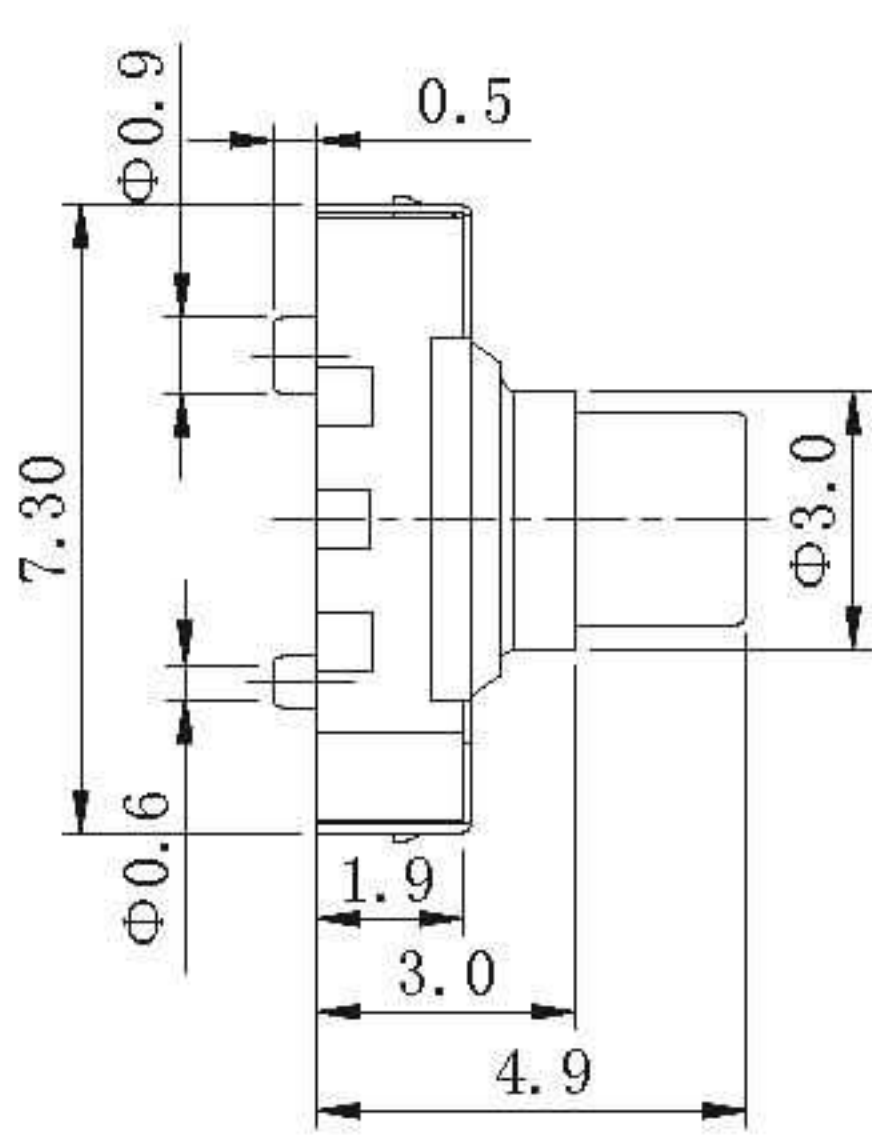
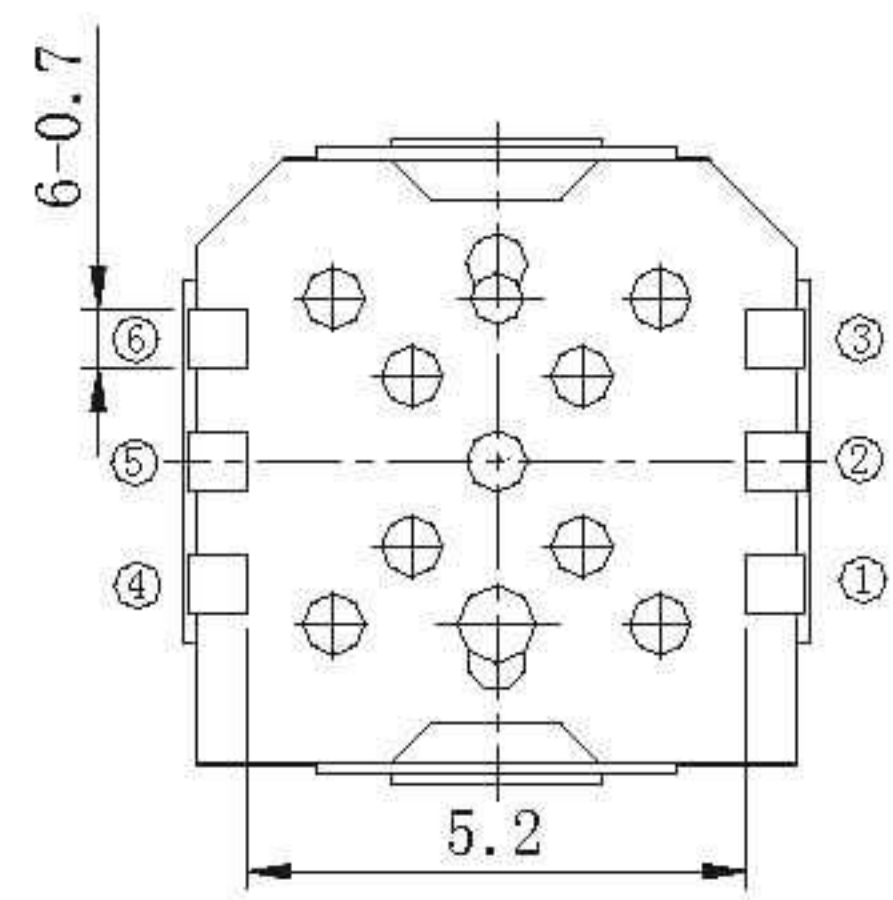
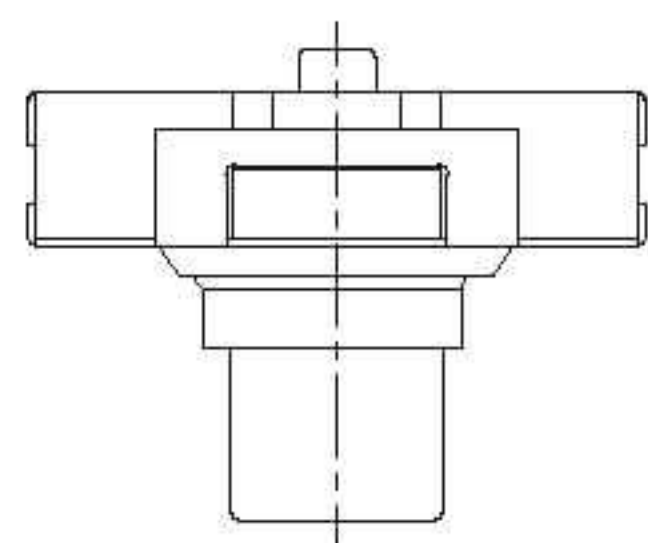
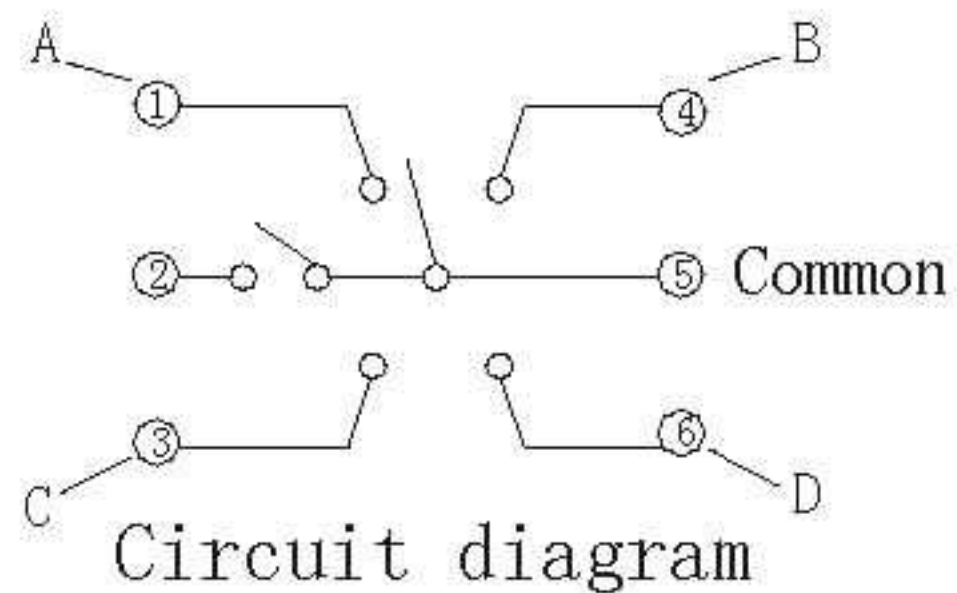
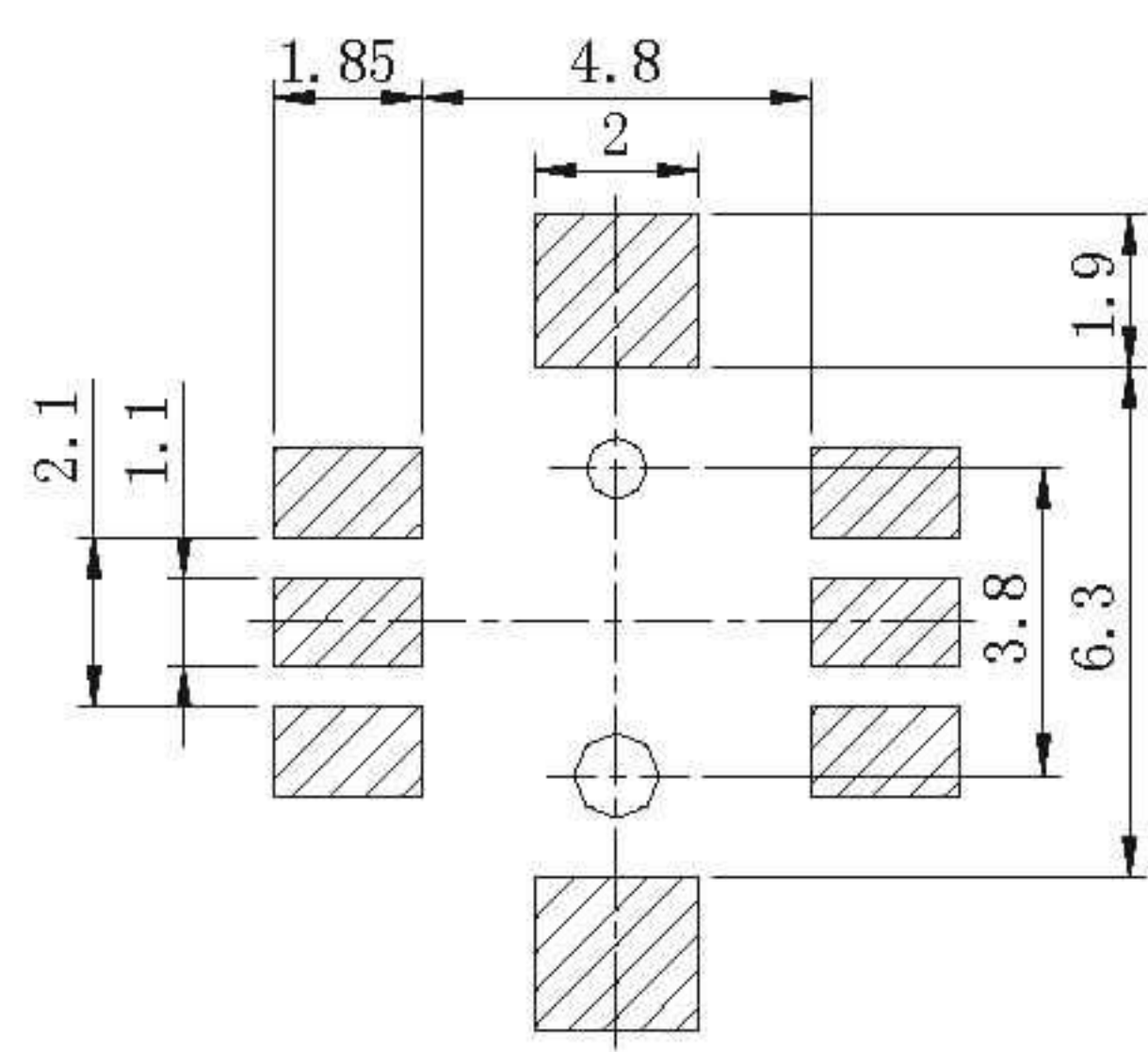
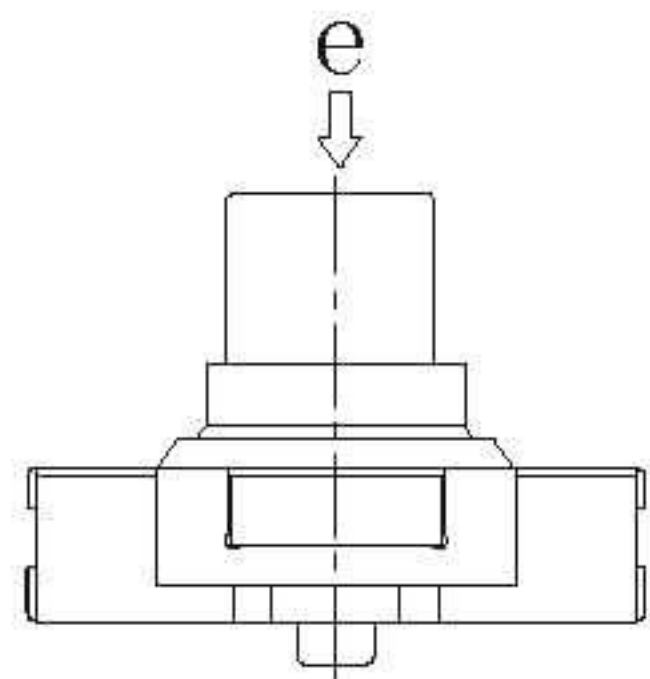


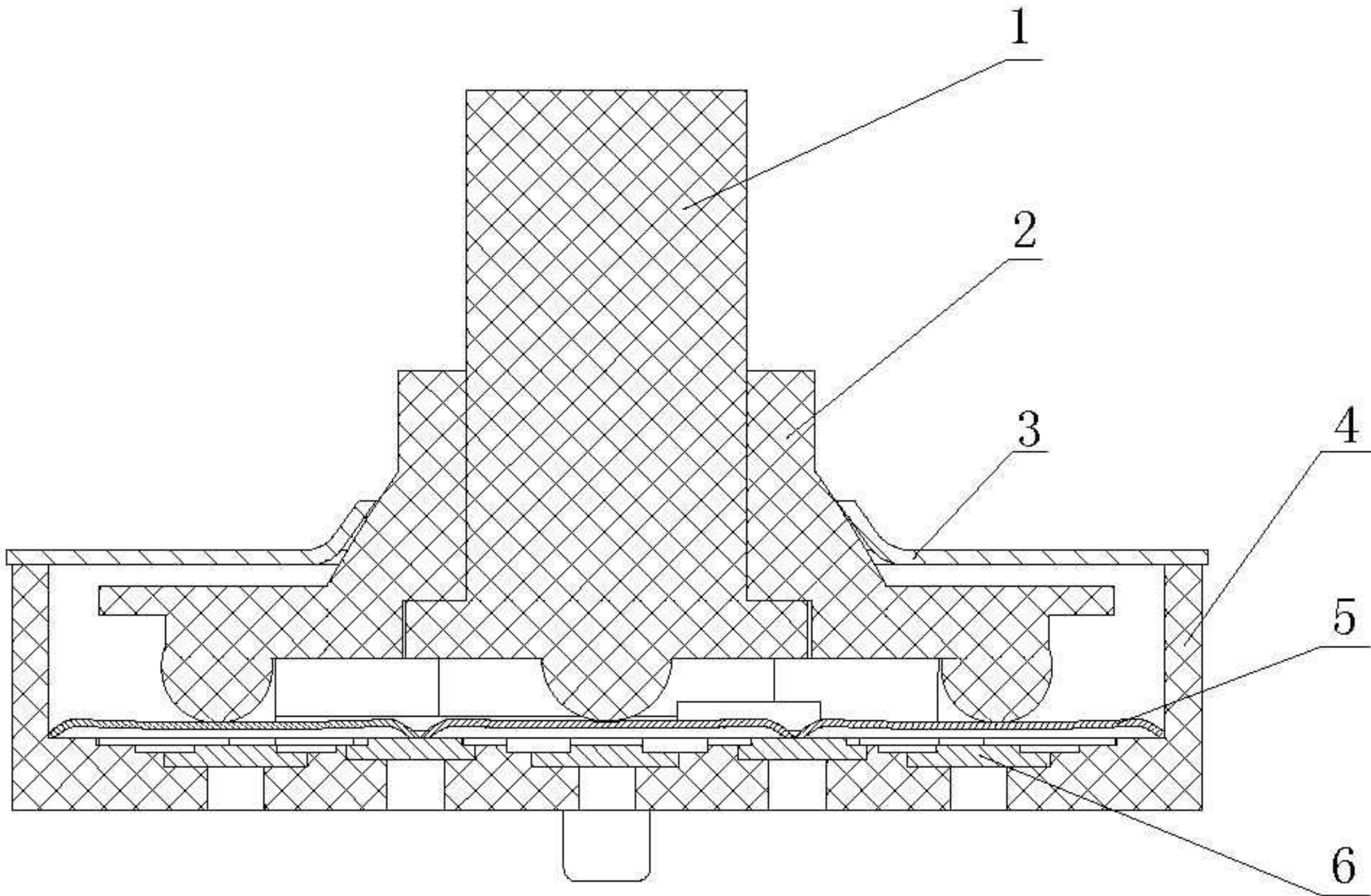
SWEETA PRODUCTS CORPORATION							
类 型		Tact Switch		品 名		SEN047-01M-300-T	
1. 功能规格							
1.1 额定电压		DC12V		1.6 行程(中间)		0.2±0.1mm	
1.2 额定电流		50 mA		1.7 行程(4个方向)		0.15±0.1mm	
1.3 接触电阻		≤100mΩ（初始值）		1.8 灵敏度(BT)		≤5ms	
1.4 操作力(中间)		300±50gf		1.9			
1.5 操作力 (4个方向)		200±50gf					
2. 可靠度参数							
2.1 机械寿命		100,000 CYCLES		2.5 焊接工艺		手工焊、回流焊	
2.2 电气寿命		100,000 CYCLES		2.6 适用温度		-20℃ - 70℃	
2.3 绝缘电阻		≥100MΩ DC100V		2.7 适用湿度		<85%RH	
2.4 耐压强度		≥100VAC 1minute		2.8			
3. 尺寸规格图							
       Tilting angle 3° f 4-Directional Center Push SMT Foot Print Pattern							
版本		修订内容				日期	修订人
文件编号		第C版 第0次修订				一般公差	±0.2
文件名称		成品规格书				单位	mm
拟制	李迎花	审核	董四龙	批准	吴万涛	生效日期	20070514

喜威達企業股份有限公司

SWEETA PRODUCTS CORPORATION

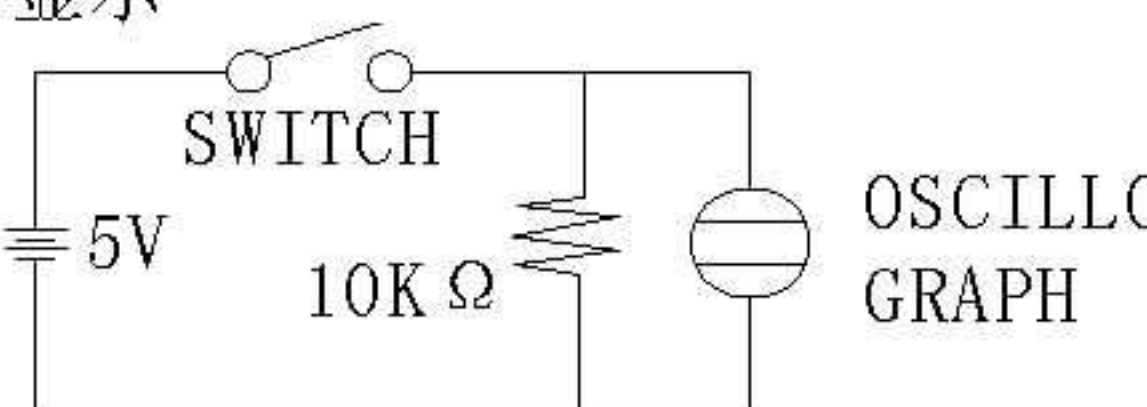
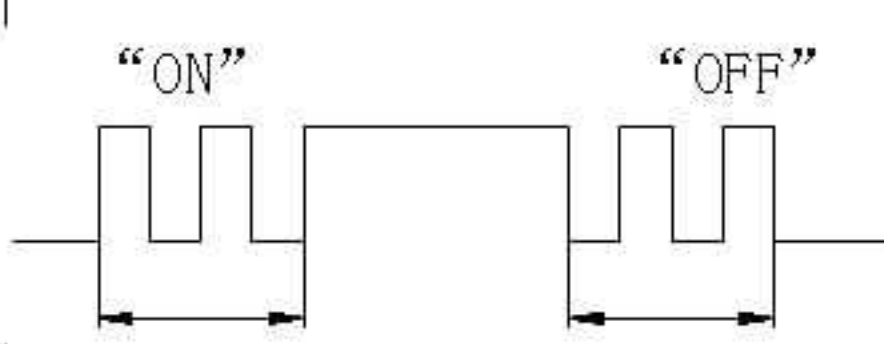
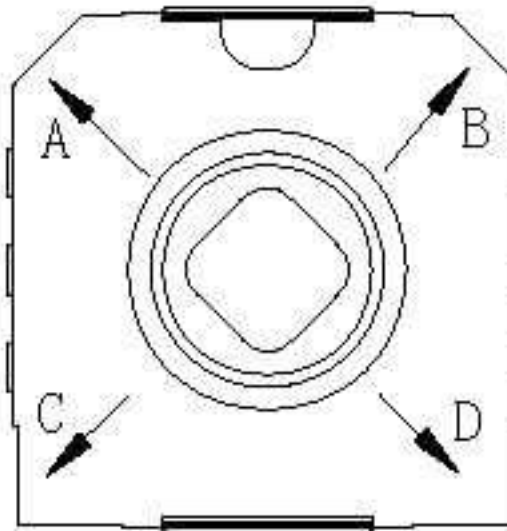
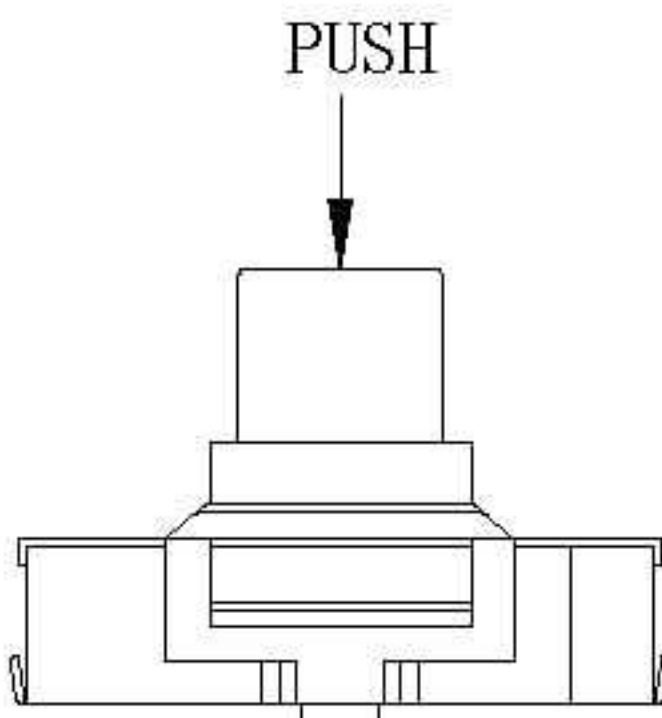
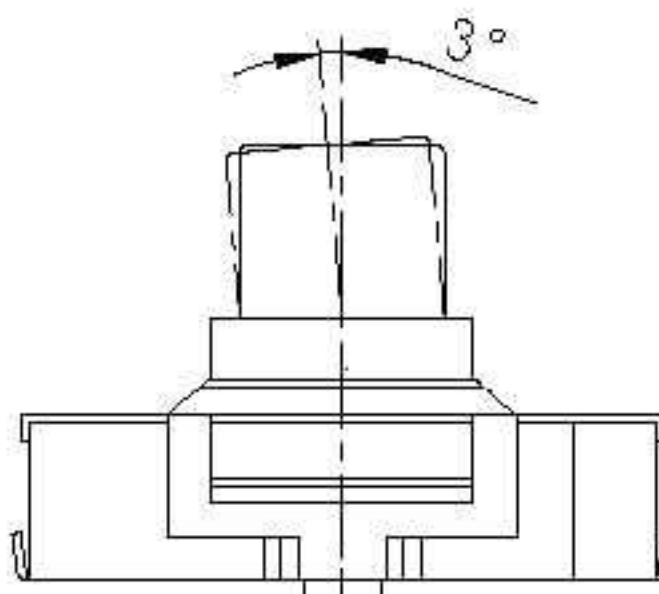
SERIES 系列		TACT SWITCH(SEN047)		Issuance date 日期:		20060801	
Document No.文件编号		DIC/PE047-002		Edition 版本		C	Page 页码 第 1 页 共 5 页
NO.	Part Name 品名	Q'TY 数量	Generic Class 材质		SGS report No. SGS 报告编号		
1	Button 按钮	1	HTN (PA6T)		GZ0703039753/CHEM		
2	Sleeve 套管	1	HTN (PA6T)		GZ0703039753/CHEM		
3	Case 外壳	1	SUS301		GZ0703039750/CHEM		
4	Base 底座	1	HTN (PA6T)		GZ0703039753/CHEM		
5	Spring Plate 弹片	2	SUS301		GZ0703040046/CHEM		
6	Terminal 端子	6	C5191		EC405312100		

Structure chart:
结构示意图:



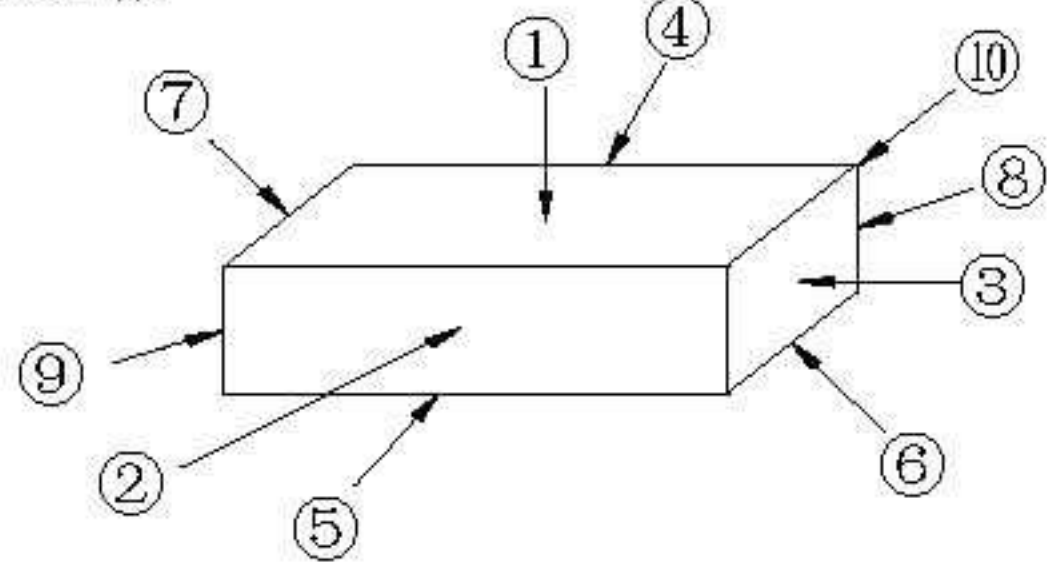
喜威達企業股份有限公司

SWEETA PRODUCTS CORPORATION

SERIES 系列		TACT SWITCH(SEN047)		Issuance date 日期:		20060801	
Document No.文件编号		DIC/PE047-002		Edition 版本		C	Page 页码 第 2 页 共 5 页
1、General(一般特性)：							
1.1 Switch rating:		50mA , 12V DC		(规格: 50mA , 12V DC)			
1.2Operating temperature range		-20℃~70℃		(操作温度范围: -20℃~70℃)			
1.3 Preservative temperature range		-30℃~80℃		(储存温度: -30℃~80℃)			
1.4 Storage humidity range		<85%RH		(储存湿度: <85%RH)			
2.Performance 功能参数							
2.1 Electrical characteristics(电气特性)							
Items 项目		Test conditions 测试条件				Criteria 标准	
2.1.1	Contact resistance 接触电阻	Applying a static 2 times the operating force press on the center of stem, measured contact resistance with 1 KHz unit micro resistance meter. 用 2 倍力量的静态荷重按压型物的中央处, 并以 1KHz 规格的微量电阻抗计, 量测接触阻抗值				Refer to individual product drawing 参考规格图纸	
2.1.2	Insulation resistance 绝缘电阻	Spec. voltage (Refer to the 2.3 item of spec. drawing) is applied between each pair of terminals and between the terminal and the metal frame for one minute. Measurement shall be made with a test instrument of insulation resistance under the condition which a voltage of Spec. voltage is applied between the terminals . 采用绝缘电阻器仪分别在相互绝缘的所有端子之间各接线端子与外露的非金属零件之间加载规格电压（参见规格图纸 2.3 项）持续 1 分钟测试绝缘电阻值。				Refer to individual product drawing 参考规格图纸	
2.1.3	Dielectric withstand in voltage 耐压强度	Spec. voltage (Refer to the 2.4 item of spec. drawing) shall be applied across terminals and frame for one minute. 在端子两端之间加载规格电压（参见规格图纸 2.4 项）,持续时间为 1 分钟.				There shall be no breakdown or flashover 成品不得有故障, 跳火及绝缘体破坏等不良现象	
2.1.4	ED (Bounce) 回弹试验	3 to 4 operations at a rate of 1 cycles per second 以图示的回路测之, 测试时以每秒 3—4 次的速度为一循环, 观察示波器上的显示 				10m seconds Max. 回弹的反应时间, 不得高于 10 毫秒 	
3.Mechanical characteristics 机械特性							
3.1.1	Operating force 操作力	Measure operation of in the direction of vertical, tilting. 测定垂直、倾斜方向的操作力				Refer to individual product drawing 参考规格图纸	
						Tilting angle 	

喜威達企業股份有限公司

SWEETA PRODUCTS CORPORATION

SERIES 系列		TACT SWITCH(SEN047)	Issuance date 日期:		20060801
Document No.文件编号		DIC/PE047-002	Edition 版本	C	Page 页码
Items 项目		Test conditions 测试条件			Criteria 标准
3.1.2	Pre-travel 行程	Placing the switch such that the direction of switch operation is vertical and the height of 10.0mm from the underside gradually increasing the load applied to the stem to come to a stop shall be measured 将成品放置定位后，以一垂直力及从底面 10.0mm 高处水平慢慢施压，使型物从开始按压处到无法按压停止，测量实际按压过程的距离。			Refer to individual product drawing 参考规格图纸
3.1.3	Stop strength 静负荷强度	A static load of 1Kgf shall be applied in the maximum force to withstand a pull applied measured 在额定操作力最大状态下，产品可以承受一个大小为 1Kgf 的静态力。			No damage (Electrical and mechanical) 无机械、电气性能损坏
3.1.4	Stem Strength 操作件强度	The maximum force to withstand a pull opposite to the direction of stem operation shall be measured. 在操作力方向，产品按件的强度应该被限定。			0.5Kgf Min. 强度不小于 0.5Kgf.
3.1.5	Impact shock test 跌落测试	1) High: 80mm 2) Cycle of test :1 cycle each in 10directions, for total 10 cycles 3) Quantity: 5000PCS /boxes 1) 高度：80mm 2) 测试次数：10 个方向分别作用 1 次，总计为 10 次 3) 数量：5000PCS/箱 			NO. 2.1.1 and 2.1.2 shall be satisfied 符合 2.1.1、2.1.2 项之条件。
4. soldering characteristics 焊接性能					
4.1	Hand soldering 手工焊	Use a soldering iron of 30 watts, controlled at 380℃ approximately 3 seconds1time while applying solder. 焊接时需 30 瓦烙铁，控制于 380℃，大约 3 秒钟 1 次条件下进行。			A new uniform coating of solder shall cover a minimum of 90% of the surface being immersed. There shall be no defects in appearance or in the mechanical functions. 覆锡性能达到浸入表面的 90%以上。 没有出现任何外观和机械功能上的损伤。

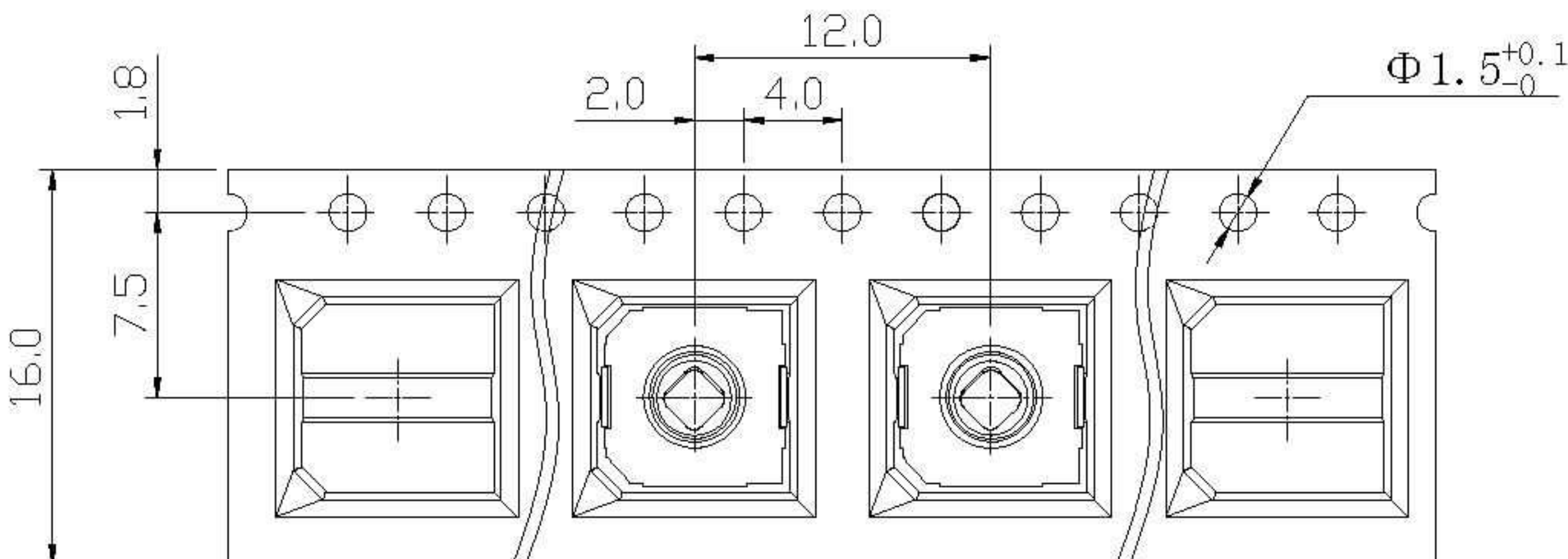
喜威達企業股份有限公司
SWEETA PRODUCTS CORPORATION

SERIES 系列		TACT SWITCH(SEN047)		Issuance date 日期:		20060801																															
Document No.文件编号		DIC/PE047-002		Edition 版本		C																															
Page 页码		第 4 页		共 5 页																																	
Items 项目		Test conditions 测试条件				Criteria 标准																															
4.2 Reflow soldering 回峰焊		When applying reflow soldering, the peak temperature of the reflow Oven should be set to 250℃max. 当使用回焊炉进行焊接时，最高温度设置为 250℃。 Condition for soldering (Reflow & Non-washable Type) Temperature Profile 焊接温度曲线图如下: <table><tr><td></td><td>Components size</td><td></td><td>Unit</td></tr><tr><td>A</td><td>Temp.rise gradient</td><td>40S</td><td>sec</td></tr><tr><td rowspan="2">B</td><td>Heating time</td><td>60-120S</td><td>sec</td></tr><tr><td>Heating temperature</td><td>120-220℃</td><td>℃</td></tr><tr><td rowspan="2">C</td><td>Time over 220℃</td><td>60-90S</td><td>sec</td></tr><tr><td>Peak temperature</td><td>250</td><td>℃</td></tr><tr><td></td><td>Peak-temp.hold time</td><td>moment</td><td>sec</td></tr><tr><td colspan="2">Soldering</td><td>1</td><td>times</td></tr></table>					Components size		Unit	A	Temp.rise gradient	40S	sec	B	Heating time	60-120S	sec	Heating temperature	120-220℃	℃	C	Time over 220℃	60-90S	sec	Peak temperature	250	℃		Peak-temp.hold time	moment	sec	Soldering		1	times	There shall be no defects in appearance or in the mechanical functions. 没有出现任何外观和机械功能上的损伤。	
	Components size		Unit																																		
A	Temp.rise gradient	40S	sec																																		
B	Heating time	60-120S	sec																																		
	Heating temperature	120-220℃	℃																																		
C	Time over 220℃	60-90S	sec																																		
	Peak temperature	250	℃																																		
	Peak-temp.hold time	moment	sec																																		
Soldering		1	times																																		
5. Durability characteristic:耐久性能																																					
5.1 Operating Life 寿命测试		(1) 12V DC 50mA Resistance load 负载为 12VDC 50mA (2) Operating speed : 2-3 cycles/second 操作频率: 2-3 次/秒 (3) Push force : maximum value of operating force twice 推动力: 操作力的最大规格值。 (4) Life: 100,000 cycles 寿命: 100,000 次				After test: (1)Contact resistance: 500mΩ Max. (2)Bounce: 20sec. Max. (3)Withstand voltage: AC250V, 1 minute (4)Operating force: 30% of initial value (5) There shall be no defects in appearance or in the mechanical functions. 试验后: (1)接触电阻:500 毫欧以下 (2)灵敏度: 20 秒以下 (3)耐压强度:AC250V, 1 分钟 (4)操作力度: 测试初始值的 30%以内 (5) 没有出现任何外观和机械功能上的损伤。																															

喜威達企業股份有限公司
SWEETA PRODUCTS CORPORATION

SERIES 系列	TACT SWITCH(SEN047)	Issuance date 日期:	20060801	
Document No.文件编号	DIC/PE047-002	Edition 版本	C	Page 页码 第 5 页 共 5 页

6. Quality records of delivered goods 出货证明记录

Items 项目	Test conditions 测试条件	Criteria 标准
6.1 Packing 包装	(1) The products are packed in the taping packaging. 产品使用料带包装 (2) The number of the reels: 数量为一盘 (3) Fine(5)reels at maximum shall be packed in a package. 包装一般在 5 卷以下 (4) The number of the switches: 开关数量: (5) 1,000 switches shall be packed in a reel. 1,000 个开关包装为 1 卷 (6) It should be noted that we Regard two cartons mentioned above as on package for export. 注意包装产品两侧硬胶之间不允许外露。 (7) Tape form and dimensions: 料带形状及尺寸	There shall be no defects in appearance or in the mechanical functions in the process of shipping. 在包装运输过程中没有出现任何外观和机械功能上的损伤。
		

7. Special Requirements 特别要求

7.1 Hazardous Substance Management: Follow environmental requirements: Hazardous Substance DIC/WI/G506.
危害物质管理：遵循环境物质规范：危害物质 DIC/WI/G506。

8. Application Notes: 注意事项

8.1 Avoid storing the products in a place at high temperature, high humidity and in corrosive gases.
避免储藏于高温、潮湿及腐蚀的场所。

8.2 Avoid excessive force when inserting into P.C.B so as to avoid deformation of terminals.
当插入 P.C.B 避免使用过分的外力, 以防端子变形。

8.3 Influence for the characteristics by something dust or foreign articles. There is a possibility something dust or foreign articles put into click of brush plate and it should cause abnormal rotation feeling.
避免灰尘或外物会掉入开关内影响其接触性能。